STICK-KE1
Sunlite Touch Sensitive Intelligent Control Keypad

Overview
This complete stand alone wall-mounted DMX controller is the perfect answer to interior lighting control expectations. Along with a state of the art design, the product comes with amazing features such as 1024 DMX channels, touch sensitive panel, clock/calendar, remote control, Ethernet facilities, and much much more....

The lighting levels, color and effects can be programmed from a PC, Mac, Android, iPad or iPhone using the included software.

http://www.nicolaudie.com/stick-ke1.htm

Key Features
- 8 touch sensitive scene buttons
- Color/dimmer/speed fader
- Touch sensitive buttons. No mechanical parts
- Touch sensitive fader allows for accurate color selection
- Multi-zone microSD memory
- Multi-room control with 200 scenes, 5 zones
- 1024 DMX channels. Control 340 RGB fixtures
- USB & Ethernet connectivity for programming and control
- RS232, Dry Contact Ports and an Infra Red input port
- Clock and calendar with Sunrise/Sunset triggering
- Network communication. Control lighting remotely
- Catalog of designs including black and white frame
- OEM customization
- Windows/Mac software to set dynamic colors/effects
- iPhone/iPad/Android remote and programming apps

Technical Data
- Input Power: 6-9V DC 0.6A
- Output Protocol: DMX512 (x2)
- Programmability: PC, Mac, Tablet, Smartphone
- Available Colors: Black / White
- Connections: USB, Ethernet, RS232, Clock, 8 dry contact ports, Output Relay
- Memory: microSD card
- Temperature: -10 °C to 50 °C
- Mounting: Single or double gang wall socket
- Dimensions: Complete Package 168x128x11.5mm, 250x150x55mm
- Weight: 200g
- Standards: EC, EMC, ROHS, ETL (some are in progress)

Optional Accessories
- POWER4M  6V ACDC power supply

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EASY INSTALLATION

1. Mount an electrical box inside the wall

The controller can be installed in any standard electrical backbox. If you use a double size box, you can insert the power supply inside.

2. Connect the wires

**POWER:** Connect a 6V DC 0.6A AC/DC supply. Be sure to not invert the + and the ground.

**DMX:** Connect the DMX cable to the lighting receivers (Leds, Dimmers, Fixtures..) (for XLR: 1=ground 2=dmx- 3=dmx+)

3. Mount the interface on the wall

First, mount the back side of the interface on the wall with 2 or more screws.
Secondly, plug the connectors:
- DMX and power (connector block)
- Ethernet cable

The front panel is mounted by clipping the 2 tabs along the top edge to the back plate and then arching down. 1 screw should then be attached underneith to hold the controller in place. A bottom cover plate can also be attached with 2 screws to cover the sockets and switches.

**CHECK PIN CONFIGURATIONS. APPLYING POWER TO THE DMX INPUT WILL DAMAGE THE CONTROLLER**

2x10 pins EXTENSION socket

<table>
<thead>
<tr>
<th>DMX CHIP replacement</th>
<th>EXTENSION socket</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMX universe #1</td>
<td></td>
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<tr>
<td>DMX universe #2</td>
<td></td>
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<tr>
<td>Ref: SP485ECN-L</td>
<td></td>
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<tr>
<td>MAX485 CSA</td>
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</tbody>
</table>

Compatible header connectors:
- WURTH ELEKTRONIK ref: 61301021121
- MIKROE ref: 10-89-7202
- TE Connectivity ref: 1-87227-0
- FCI ref: 77313-101-20LF
- HARWIN ref: M20-9981046
- SAMTEC ref: TSW-110-xx-T-D
- FARNELL ref: 1841232
- RS ref: 763-6754 673-7534 251-8165
- MOUSER ref: 538-10-89-7202
- DIGIKEY ref: WM26820-ND
Connections

**SPECIFICATIONS / CONNECTIONS**

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<th>Built-in features</th>
<th>screw-terminal rear connector (9 pins)</th>
<th>extension socket rear connectors (2x10 pins)</th>
<th>front access connections (open cover)</th>
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<td>•</td>
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<tr>
<td>DMX Output #2</td>
<td>First universe, 512 channels DMX512 output</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>USB</td>
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<td>•</td>
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<tr>
<td>Ethernet</td>
<td>USB 2.0 communication for PC/software</td>
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<td>•</td>
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<tr>
<td>Ports 1,2,3,4</td>
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<td>Ports 5,6,7,8</td>
<td>4 Contact closure inputs, connect to ground for operating</td>
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<td>•</td>
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<td>•</td>
</tr>
<tr>
<td>User interface</td>
<td>4 Contact closure inputs, connect to ground for operating</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>SDCARD</td>
<td>14 buttons, 1 fader, 28 leds (Touch-sensitive keypad)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>RESET</td>
<td>Micro sd card for stand alone memory use (supplied)</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Output relay</td>
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<td>CLOCK</td>
<td>Automatic Stand by 5V signal</td>
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<tr>
<td>Infrared receiver</td>
<td>Real time clock and calendar</td>
<td>•</td>
<td>•</td>
<td>•</td>
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<tr>
<td>Service</td>
<td>Easy learning triggering from any 36Khz remote control</td>
<td>•</td>
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</tbody>
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Service

Servicable parts include:
- Memory card - used to store the scenes
- Battery - used to store the clock/calendar
- DMX Chips - used to drive the DMX (see p2.)

*To replace the Li-Ion rechargeable battery:
1. You need a rechargeable 3.6v LIR 2032 replacement battery
2. Remove the back panel by pulling down and sliding it out.
3. Using a paper clip push the battery from the bottom so it slides out of its cage.
4. Slide the replacement battery in from the top, making sure the positive side is facing up.
5. Replace the back panel by pushing it up into place.
Setting up the Controller

Dry Contact Port Triggering
It is possible to start scenes using the input ports (contact closure). To activate a port, a brief contact of at least 1/25 second must be established between the ports (1...8) and the ground (GND). Note: the scene will not be switched off when the switch is released.

RS232 Triggering
Make a cable using the 3 pins: TX, RX and G (GND)
Set the RS232 parameters to: 9600bds 8 bits, no Parity, 2 Stop bits
- To play a scene, send 3 bytes: 1 x 255
- To stop a scene, send 3 bytes: 2 x 255
- To pause a scene, send 3 bytes: 3 x 255
- To release a pause, send 3 bytes: 4 x 255
- To reset a scene, send 3 bytes: 5 x 255
The scene number (x) can be from 1 to 40. For instance, 11 means Page B Scene #3

BLACKOUT Relay (energy saving)
A relay can be connected between the RELAY and GND sockets of the 20 pin extension socket. This can be used to turn off other equipment such as lighting drivers. The signal is connected when the controller is in standby.

Infra Red
The controller works with the official IR remote control, however there is no receiver. A 38khz infra red receiver can be connected, such as the TSOP34836 by Vishay Semiconductors. Farnell ref: 4913127. This can be attached to the 20 pin connector. It's a good idea to add a resistor and capacitor to suppress power supply disturbance.

iPod/iPad/Android Control
The controller can be used with one of 3 different apps. Each available at Google Play and the App store.

STICK Remote
Designed to work seamlessly with the controller, STICK Remote provides an easy way to control your lights over a local WiFi network. Use the slider to change the dimmer, color or speed, and the 8 scene buttons to select scenes and effects just like the wall panel.

Easy Remote
Create an entire customized remote controller for your tablet or smartphone. Easy Remote is a powerful and intuitive app allowing you to easily add buttons, faders, color wheels and more. Connect to a WiFi network and the app will find all compatible devices.

Arcolis
The Arcolis application is a comprehensive tool allowing you to directly control and re-program the controller from your smartphone or tablet. This is a simple application which can be used by just about everyone in any situation. Mobile, easy to use and powerful, Arcolis is the ideal controller for dimming or switching traditional, LED and RGB color mixing DMX lighting fixtures. Program static and dynamic lighting scenes and effects.

UDP Triggering
The controller can be connected to an existing automation system over a network and triggered via UDP packet on port 2430. Refer to the remote protocol document for more information.

Network Control
The controller can be connected to a local network, allowing it to be controlled from a smartphone or tablet over WiFi.
• Connect the controller to a router or switch with an RJ45 cable
• The controller is set by default to get an IP address from the router via DHCP. If the network is not working with DHCP, a manual IP address and subnet mask can be set using the Hardware Manager
• If the network has a firewall enabled, allow port 2430

Programming the Controller
The controller can be programmed from a PC, Mac, Tablet or Smartphone using the software available on our website. Refer to the corresponding software manual for more information. The firmware can be updated using the Hardware Manager which is included with the programming software.

ESA Pro Software (Windows) - Timeline + Multi-Zone
ESA2 Software (Windows/Mac) - Single Zone
http://www.nicolaudie.com/esa2.htm

Hardware Manager (Windows/Mac) - Firmware, clock,
http://www.dmxsoft.com/global/ftp/HardwareManager.dmg

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Some functions are available directly from the controller keypad using the SELECT button.

- **Select + 1**: View time
  
  Example: view 2:45pm = 14:45 = 1445
  
  1445 = 2:45pm (USA) or 14:45 (Europe)

- **Select + 2**: View date
  
  Example: view 6 SEP. 2009 date = 060909
  
  060909 = September 6th 2009

- **Select + 3**: Set time
  
  Example: set 3:30pm = 15:30 = 1530
  
  1530

- **Select + 4**: Set date
  
  Example: set 5 DEC 2008 date = 051230
  
  051230

- **Select + 5**: Set fade time
  
  Example: set 01'32" fade time = 1 minute and 32 seconds = 0132
  
  0132

- **Select + 6**: Lock function
  
  This function locks the keypad (disabled by default)
  Use the TOOLS program to enable it and set the 4-digit code

- **Select + 9**: Set IR
  
  Example: assign an IR key to Scene #2

- **Select + 0**: Firmware version
  
  Example: view 1.02 firmware version = 0102
  
  0102 = firmware version 1.02
Troubleshooting

The 8 Scene LEDs on the controller are flickering
The controller is in bootloader mode. This is a special ‘startup mode’ which is run before the main firmware loads.
- Check that there is nothing metallic touching the back of the controller
- Try re-writing the firmware with the latest hardware manager
- Try formatting or replacing the SD card

All LEDs on the controller are flashing
There is no showfile detected on the SD memory card.
- Try formatting the SD card in the computer
- Try re-writing the show file
- Try replacing the SD memory card

The controller is not detected by the computer
- Be sure that the latest software version is installed
- Connect by USB and open the Hardware Manager (found in the software directory). If it’s detected here, try to update the firmware

All LEDs on the controller are flickering except the standby LED
There is no showfile detected on the SD memory card.
- Try formatting the SD card in the computer
- Try re-writing the show file
- Try replacing the SD memory card

The lights are not responding
- Check the DMX +, - and GND are connected correctly
- Check that the driver or lighting fixture is in DMX mode
- Be sure that the DMX address has been set correctly
- Check there are no more than 32 devices in the chain
- Check that the DMX LED is flickering to the right of the SD card
- Connect with the computer and open Hardware Manager (found in the software directory). Open the DMX Input/Output tab and move the faders. If your fixtures respond here, it is possibly a problem with the show file